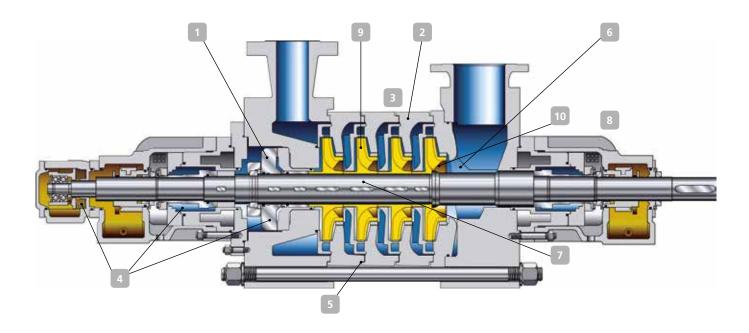


# **HGC** – Boiler feed pump



#### High operating reliability

- 1 Axial thrust balancing by balance disc
- 2 Adaptation of pump casing to rotor deflection line

# **Tapping**

3 Extraction of one or several partial flows of feed water for use elsewhere in the power station

# Ease of service

- 4 Easy maintenance of wear parts (bearings, seal elements, balancing devices)
- 5 Metal-to-metal sealing of casing

### Materials

Suction casing	Carbon steel
Diacharge casing	Chrome steel
Stage casing	Chrome steel
Impeller / Diffuser	Chrome steel
Shaft	Quenched and tempered steel

### Long service life

- 6 Avoidance of cavitation erosion inside the pump through hydraulically optimised inlet
- 7 Variant straight shaft design featuring increased operation safety

# Reduced energy costs

- 8 No pre-warming of pump required
- 9 More than 100 impeller/diffuser combinations with optimum efficiencies possible

# Low capital expenditure

Double-entry inlet available as an option (so, in many applications, no booster pump is required)

### Technical data\*

up to 1,450 m³/h
up to 4,200 m
up to 420 bar
up to 200 °C
up to 7,000 m <sup>-1</sup>
50/60 Hz

<sup>\*</sup>Higher ratings on request

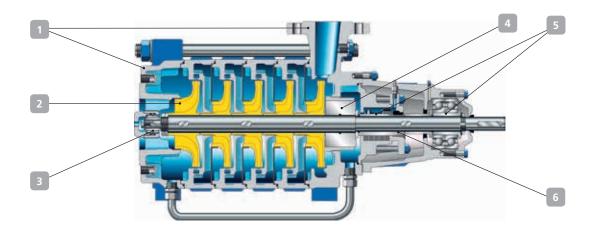




# Multitec – High-pressure Pump in Ring-section Design



# Multitec - High-pressure Pump in Ring-section Design



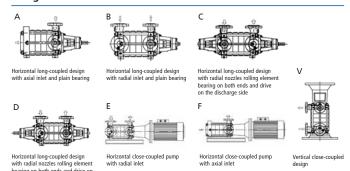
# Versatile and flexible pump

- 1 Suction and discharge nozzles can be adjusted to the system as needed, even on site.
- Large choice of designs, materials and shaft seals to adapt to the customer's project.

# High operating reliability

- 2 Special suction impeller designed for good performance and smooth running even under poor suction conditions or for handling fluids with low vapour pressure.
- Wear-resistant, self-aligning plain bearing made of silicon carbide.
- 4 Axial thrust balancing ensured by balancing drum for a long service life.

# Designs



Technical data	Size: DN32-200	
Flow rate	up to 850 m³/h	3742 Usgpm
Discharge head	up to 1000 m	3280 ft
Pump discharge pressure	up to 100 bar	up to 1450 psi
Fluid temperature	-10 to + 200 °C	14 to 392 °F
Frequency	50 and 60 Hz, 2 and 4 poles	



#### KSB Aktiengesellschaft Johann-Klein-Straße 9 67227 Frankenthal (Germany) www.ksb.com

# Low operating costs

- Optimised hydraulic design and impellers trimmed to the duty point as a standard to ensure the system's high efficiency.
- KSB SuPremE® IE4\* synchronous reluctance motor, PumpMeter, as well as PumpDrive or PumpDrive R variable speed systems ensure optimal efficiency of the complete pump set and automatic adjustment to current demand, thus important energy savings are achieved.

# Service-friendly design, low spare parts costs

- Easy dismantling of bearing and shaft seal without the need to remove hydraulic components thanks to separate seal chamber/bearing housing as well as shaft protecting sleeves at the bearing and shaft seal.
- With some pump models, there is only one discharge-side seal. This reduces the costs for purchasing and storing spare parts.

# Other features

Flanges	DIN or drilled to ASME
Drive	direct by electric motor

# Materials

Cast iron	Bronze
Nodular cast iron (only for DN 200)	Cast steel
Duplex and super duplex stainless steel	Stainless steel

#### **Automation options**

PumpDrive, PumpDrive R, KSB SuPremE® IE4\* motor, PumpMeter

<sup>\*</sup> IE4 acc. to IEC/CD 60034-30 Ed. 2